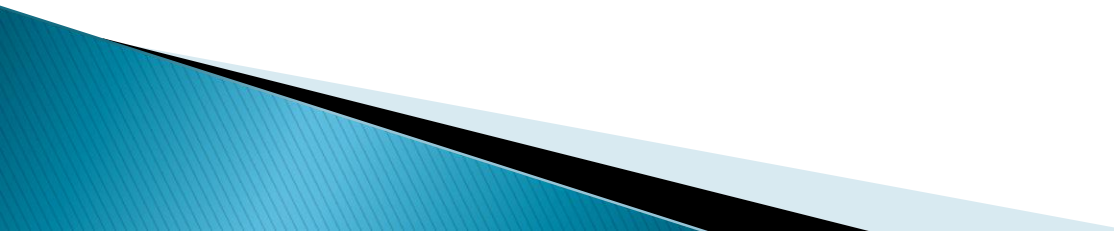


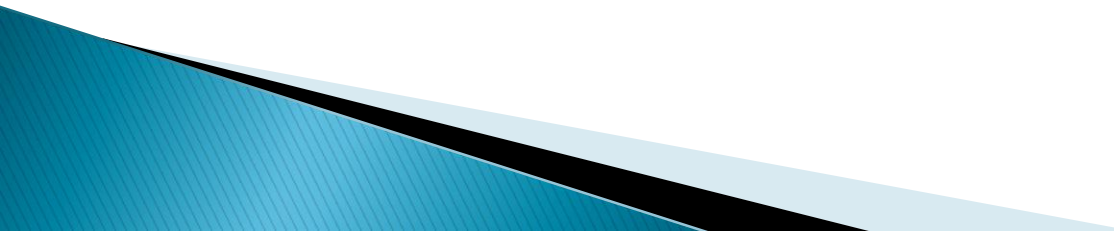
Common Core Standards & How They Affect CTE

Alyssa Lynch

Outcomes

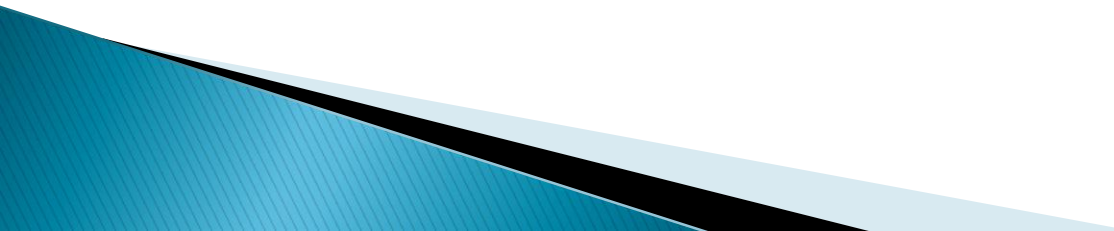
- ▶ Acronyms
 - ▶ Explore the Common Core State Standards (CCSS)
 - ▶ Familiarize yourself with the College and Career Readiness Anchor Standards (CCR)
 - ▶ Explore the new CTE Model Curriculum Standards (MCS)
 - ▶ Form new academic and CTE teams
 - ▶ Share your journey
- 

Acronyms

- ▶ CCR: College & Career Readiness Standards
 - ▶ CCSS: Common Core State Standards
 - ▶ CTE: Career Technical Education
 - ▶ MCP: Model Course Pathways
 - ▶ MCS: Model Curriculum Standards
 - ▶ SBAC: Smarter Balanced Assessment Consortium
- 

The Time is Now

The Opportunity is Perfect

- ▶ Across the nation states are aligning their curriculum to the Common Core State Standards (CCSS)
 - ▶ Help break down old educational silos between academic and CTE teachers!
 - ▶ CCSS should engage ALL students in academic and CTE courses
- 

Attention CTE Leaders!

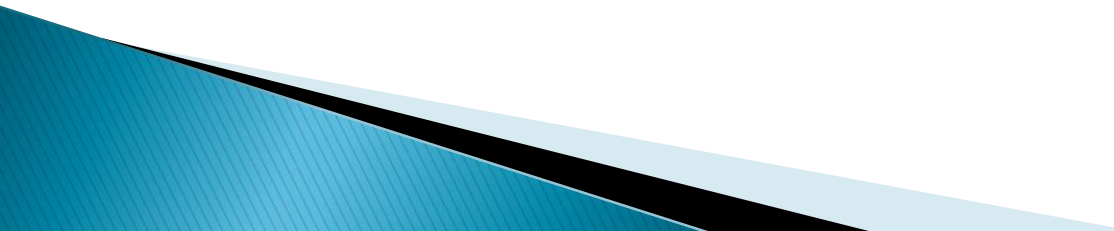
- ▶ According to an “Achieve Survey” report:
 - Nearly half the states have **NO** CTE representation on their CCSS implementation teams
 - CCSS are being viewed as purely academic



Achieve Survey: Common Core Standards and Career Technical Education: Bridging the Divide between College and Career Readiness

<http://www.achieve.org/CCSS-CTE-BridgingtheDivide>

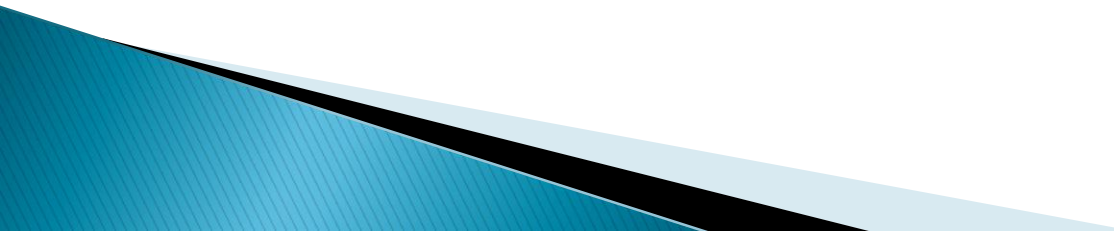
Why are the CCSS Important?

- ▶ Promotes **interdisciplinary** content literacy
 - ▶ Prepares students for a competitive global job market
 - ▶ Ensures consistent expectations from state to state
- 

Video Clip

- ▶ Common Core Standards: A New Foundation (YouTube)

CCSS Overview

- ▶ Provide a consistent, clear understanding of what students are expected to learn
 - ▶ Designed to be robust and relevant to the real world
 - ▶ Reflect the knowledge and skills students need for success in college and career
- 

Standards Information

- ▶ CCSS for K–12 replace:
 - English Language Arts
 - Mathematics
- ▶ Literacy Standards Grades 6–12
COMPLEMENT
 - History/Social Science Standards
 - Science Standards
 - CTE Model Curriculum Standards



What the CCSS Do and Do Not Cover:

Do	Do Not
Define what all students are expected to know and be able to do	Define HOW teachers should teach
Focus on what is most essential	Describe all that can or should be taught
Define general, cross-disciplinary literacy expectations	Define everything needed to be college and career ready

What the CCSS Do and Do Not Cover:

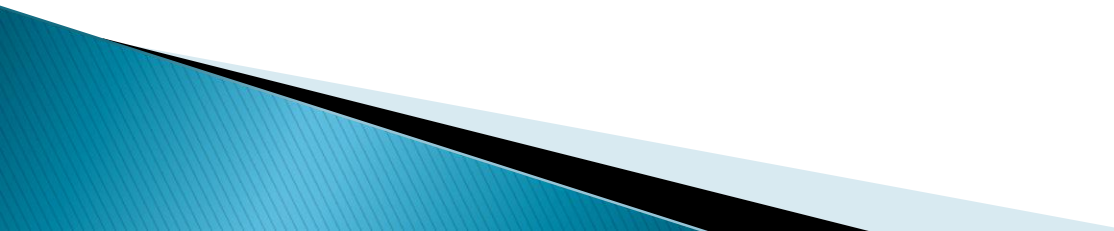
Do	Do Not
Set grade-level standards	Define the intervention methods or materials
Allow for a wide range of student participation	Define specific support for ELL and students with disabilities
Establish a baseline for advanced learners	Define the nature of advanced work

Proposed CCSS Timeline

	Mathematics	ELA
Frameworks	2015	2017
Instructional Materials Roll Out	2018	2020
Assessments <i>Smarter Balanced Assessment Consortium</i>	2014–2015	2014–2015

SBAC: <http://www.k12.wa.us/smarter/>

What are Technical Subjects?

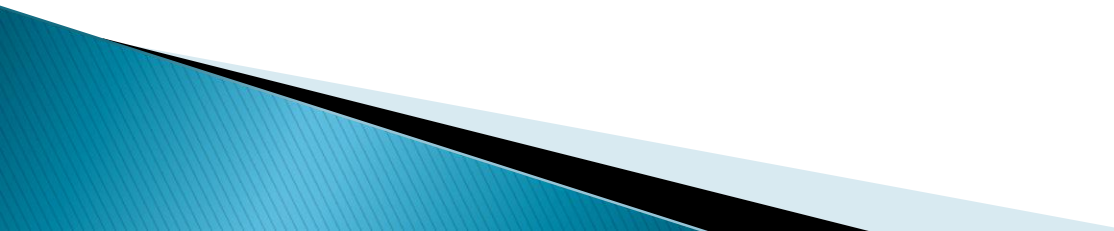
- ▶ Any courses that are devoted to a practical study such as workforce related subjects.
 - ▶ Workforce related subjects fall under the 15 CTE industry sectors
 - ▶ Appendix A of the Common Core State Standards document states that a Technical Subject also includes a broader field of study such as music or art.
- 

Collaborative Conversation

- ▶ What courses are there in your school and district that are considered “technical?”



CCR Anchor Standards

- ▶ CCR Anchor Standards are the foundation standards for college and career readiness
 - ▶ The K–12 standards have been backwards mapped to meet the CCR Anchor standards
 - ▶ CCR Anchor Standards within each strand are the same, K–12
- 

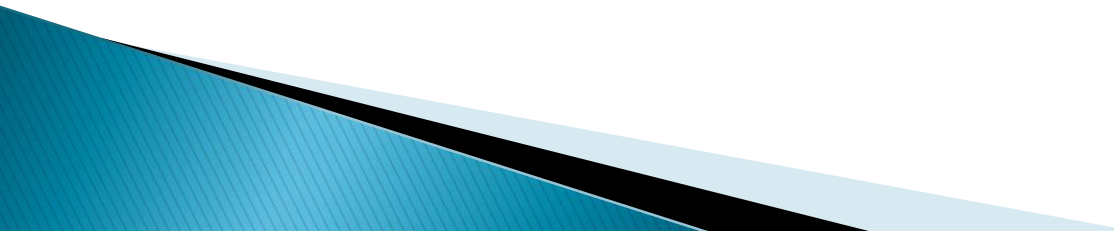
CCR Anchor Standard Layout

- ▶ Notation example:

R.CCR.1.0	
R	Reading
CCR	College & Career Anchor Standard
1.0	Standard Code

CCR Anchor Standards

Grades 6–12

- ▶ 10 standards students should understand and be able to do by the end of each grade span
 - ▶ CCR and grade-specific standards are necessary complements
 - Provides broad standards and then additional specificity
- 

CCR Anchor Standards

Grades 6–12 for **Reading**

► Four Sections

1. Key Ideas and Details
2. Craft and Structure
3. Integration of Knowledge and Ideas
4. Range of Reading and Level of Text Complexity

Note the text on the right hand side of the page: “*Note on range and content of student reading*”



CCR Anchor Standards Grades 6–12 for **Writing**

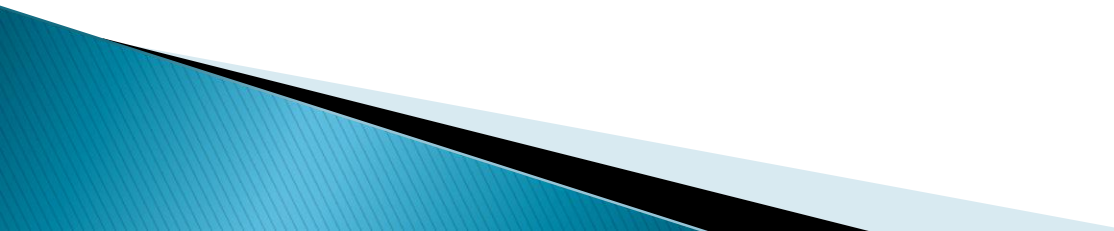
▶ Four Sections

1. Text Types and Purposes
2. Production and Distribution of Writing
3. Research to Build and Present Knowledge
4. Range of Writing

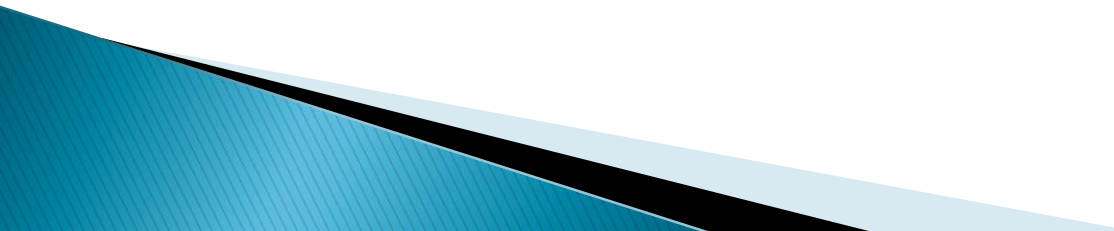
Note the text on the right hand side of the page: “*Note on range and content of student writing*”



Collaborative Conversation

- ▶ Look at the CCR Anchor Standards for Reading
 - ▶ Which standard or standards could relate to CTE competencies for a culinary arts student who is tasked with examining three instructional manuals in order to understand and evaluate the process for safely handling knives?
- 

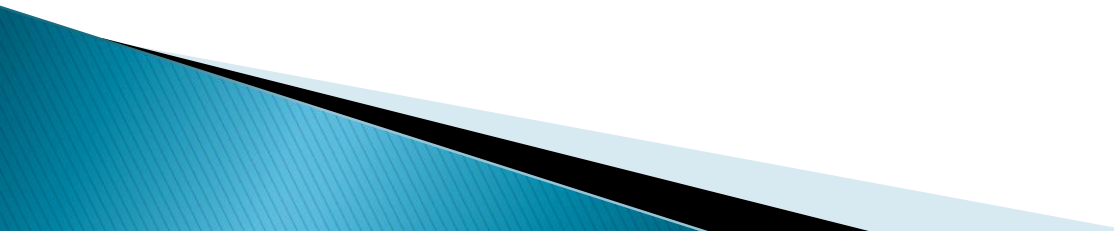
Collaborative Conversation

- ▶ Look at the CCR Standards for Writing
 - ▶ Which standard or standards would apply to a group of 3 CTE/ROP auto technology students who are assigned to develop an electronic tri-fold style brochure advertising their CTE course final project on automotive electrical systems?
- 

Literacy in History/Social Studies, Science, & Technical Subjects; Grades 6–12

- ▶ Reading/Language Arts Framework 2007
 - “...responsibility for improving reading comprehension should be shared with teachers of all subjects.” (pp.175, 192)
- ▶ SHARED responsibility is an ideal solution for acquiring vocabulary across disciplines.
(p. 232)

Literacy in History/Social Studies, Science, & Technical Subjects; Grades 6–12

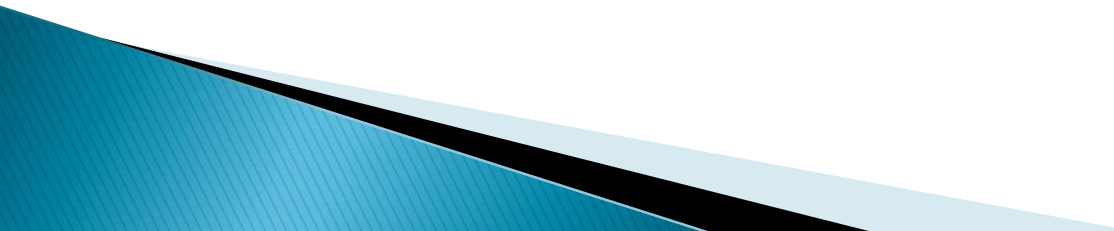
- Emphasizes a focus on discipline-specific vocabulary
 - Unique text structures found in informational texts
 - Reading and writing in **all classrooms**
 - Focus on critical analysis and evidence
- 

Collaborative Conversation

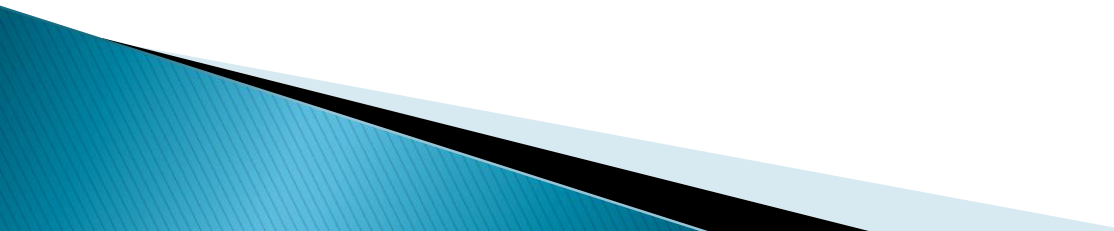
- ▶ Since student literacy is everyone's job, what kind of lessons or projects can be designed to cross over different disciplines?



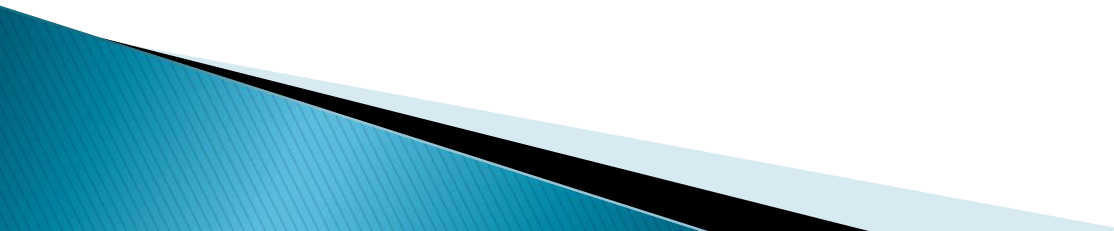
Common Core Content Standards for Mathematics

- ▶ Organized by grade level in grades K–8
 - ▶ At the high school level, the standards are organized by conceptual category
 - knowledge students should learn in each category to be college and career ready
 - ▶ A group of experts are tasked to develop Model Course Pathways in Mathematics based on the Common Core State Standards
- 

Model Course Pathways

- ▶ The pathways and courses are models, not mandates
 - ▶ All college and career ready standards (those without a +) are found in each pathway
 - ▶ Course descriptions delineate the mathematics standards to be covered in a course
- 

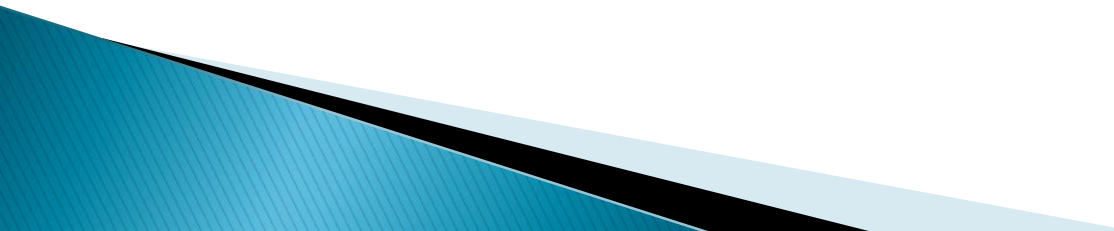
Model Course Pathways

- ▶ Units within each course are intended to suggest a possible grouping of the standards into coherent blocks
 - ▶ States and districts are encouraged to carefully consider the content in each course and use names that they feel are most appropriate
- 

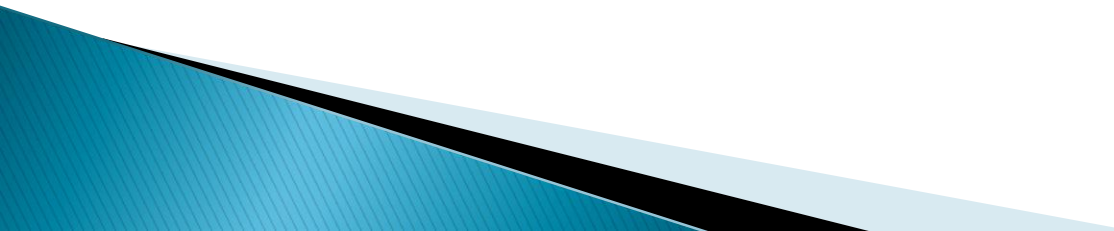
Model Course Pathways

- ▶ While the focus of this document is on organizing the Standards for Mathematical Content into model pathways to college and career readiness, the content standards must also be connected to the Standards for Mathematical Practice to ensure that the skills needed for later success are developed.

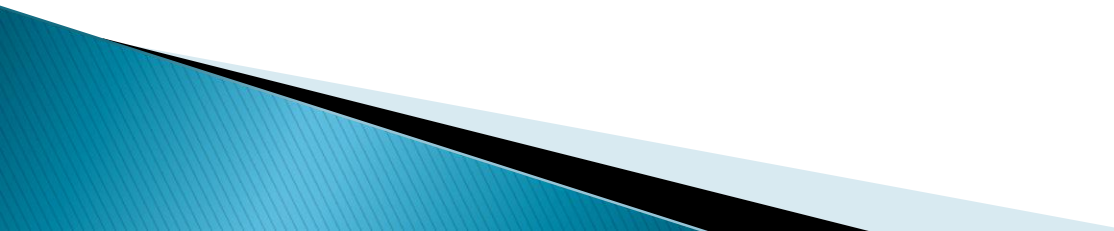
Common Core Content Standards for Mathematics

- ▶ Eight Mathematical Practices
 - 1. Make sense of problems and persevere in solving them.
 - 2. Reason abstractly and quantitatively.
 - 3. Construct viable arguments and critique the reasoning of others.
 - 4. Model with mathematics.
 - 5. Use appropriate tools strategically.
 - 6. Attend to precision.
 - 7. Look for and make use of structure.
 - 8. Look for and express regularity in repeated reasoning.
- 

High School standards are listed by conceptual categories:

- ▶ Number and Quantity
 - ▶ Algebra
 - ▶ Functions
 - ▶ Modeling
 - ▶ Geometry
 - ▶ Statistics and Probability
 - ▶ Calculus
- 

Modeling Examples

- ▶ Analyzing stopping distance for a car.
(Automotive, Criminal Justice classes)
 - ▶ Modeling savings account balance, bacterial colony growth, or investment growth.
(Business & Finance, Medical Science classes)
 - ▶ Analyzing risk in situations such as extreme sports, pandemics, and terrorism.
(Health Occupations, First Responder classes)
- 

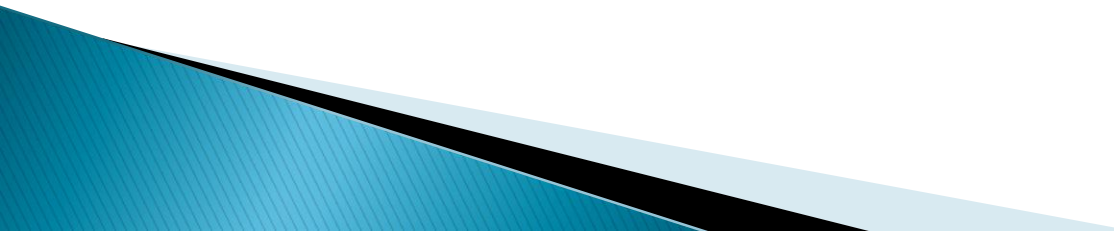
New CTE Model Curriculum Standards

Why do standards change?

- ▶ Standards are intended to be a living work; as new and better evidence emerges, standards should be revised accordingly.

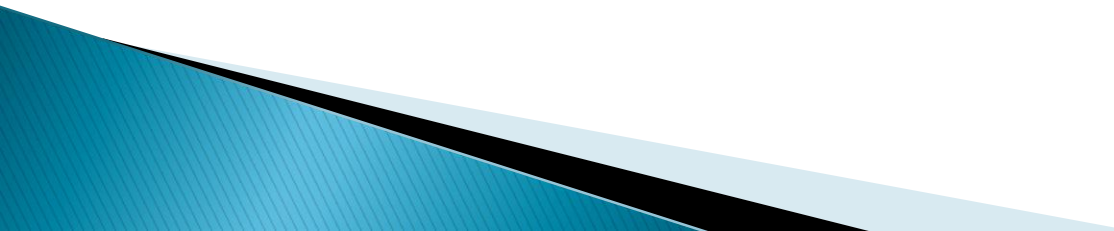


CTE Model Curriculum Standards (MCS)

- ▶ How Revisions Came About
 - Teams of professional representatives from business and industry, postsecondary, secondary, CTE, academic, county, state and local education leaders reviewed and revised CTE standards.
 - All 15 Industry sectors are still intact but there are a few title changes.
- 

CTE MCS Standards & Framework

Four Main Areas

- ▶ Common Career Technical Core
 - Knowledge & skills for all students
 - ▶ CTE Anchor Standards
 - Common in title, written in context
 - ▶ Industry Sector Pathway Standards
 - Content specific to pathway expectations
 - ▶ Career Specialty
 - Capstone: certification, licensure, degree
- 

CTE MCS

Industry Sector Title Changes

Old	New
Building, Trades & Construction	Building Construction Trades
Finance and Business	Business and Finance
Information Technology	Information & Communication Technologies
Engineering & Design	Engineering

CTE MCS

Pathway Title Revisions

Industry Sector	Old Pathway	New Pathway
Arts, Media & Entertainment	Media & Design Arts	Design, Visual & Media Arts
	<i>New Pathway</i>	<i>Game Design Integration</i>
Building Construction Trades	Cabinetmaking & Wood Products	Cabinetry, Millwork & Woodworking
	<i>New Pathway</i>	<i>Construction Technology</i>

CTE MCS

Pathway Title Revisions

Industry Sector	Old Pathway	New Pathway
Energy & Utilities	Electromechanical Installation & Maintenance	Power & Energy
	Energy & Environmental Technology	Environmental Technologies
	Public Utilities	Water Use Efficiency
	Residential & Commercial Energy & Utilities	Telecommunications

CTE MCS

Pathway Title Revisions

Industry Sector	Old Pathway	New Pathway
Engineering	Architectural & Structural Engineering	Architectural Design
	Computer Hardware, Electrical & Networking Engineering	Moved to: Information & Communication Technologies
	Engineering Design	Engineering Technology
	Engineering Technology	Engineering Design
	Environmental & Natural Science Engineering	Environmental Engineering

*Reordered

CTE MCS

Pathway Title Revisions

Industry Sector	Old Pathway	New Pathway
Fashion	Fashion Design, Manufacturing & Merchandising	Fashion Design & Merchandising
	Interior Design, Furnishings & Maintenance	Interior Design
Business & Finance	Accounting Services	Financial Services
	Banking & Related Services	International Business
	Business Financial Management	Business Management

CTE MCS

Pathway Title Revisions

Industry Sector	Old Pathway	New Pathway
Health, Science & Medical Technology	Biotechnology Research & Development	Biotechnology
	Diagnostic Services	Patient Care
	Health Informatics	Healthcare Administrative Services
	Support Services	Healthcare Operational Support Services
	Therapeutic Services	Public & Community Health Mental & Behavioral Health

CTE MCS

Pathway Title Revisions

Industry Sector	Old Pathway	New Pathway
Information & Communication Technologies	Media & Support Services	<i>Remove this pathway</i>
	Network Communications	Networking
	Programming & Systems Development	Software & Systems Development
	<i>Add new pathway</i>	<i>Games & Simulation</i>

CTE MCS

Pathway Title Revisions

Industry Sector	Old Pathway	New Pathway
Manufacturing & Product Development	Graphic Arts Technology	Graphic Design Technologies
	Integrated Graphics Technology	<i>Remove this pathway</i>
	Machine & Forming Technology	Machining & Forming Technology
	Welding Technology	Welding & Materials Joining
	<i>Add new pathway</i>	<i>Product Innovation & Design</i>

CTE MCS

Pathway Title Revisions

Industry Sector	Old Pathway	New Pathway
Marketing, Sales & Service	E-commerce	Marketing
	Entrepreneurship	Entrepreneurship & Self-Employment
	International Trade	<i>Moved to Business and Finance</i>
	Professional Sales & Marketing	Professional Trades
	<i>Add new pathway</i>	<i>Personal Services</i>

CTE MCS

Pathway Title Revisions

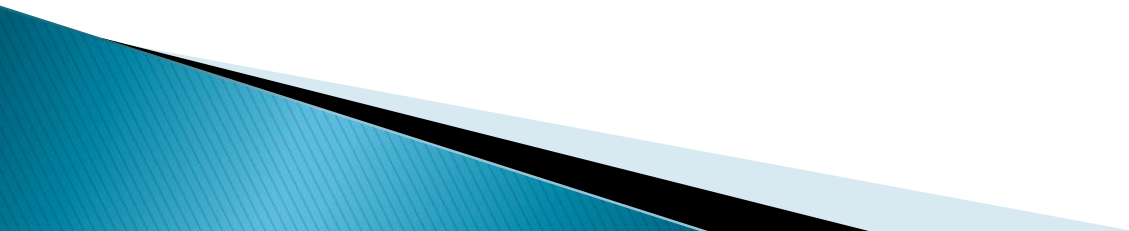
Industry Sector	Old Pathway	New Pathway
Public Services	Human Services	Social Services
	Legal & Government Services	Government & Public Administration Services
	Protective Services	Public Safety
	<i>Add new pathway</i>	<i>Legal Professions</i>

CTE MCS

Pathway Title Revisions

Industry Sector	Old Pathway	New Pathway
Transportation	Aviation & Aerospace	Operations
	Collision Repair & Refinishing	Structural Repair & Refinishing
	(All Changed)	Systems Diagnostics & Services

How do these changes affect Credentialing?




CTE MCS Standards & Framework

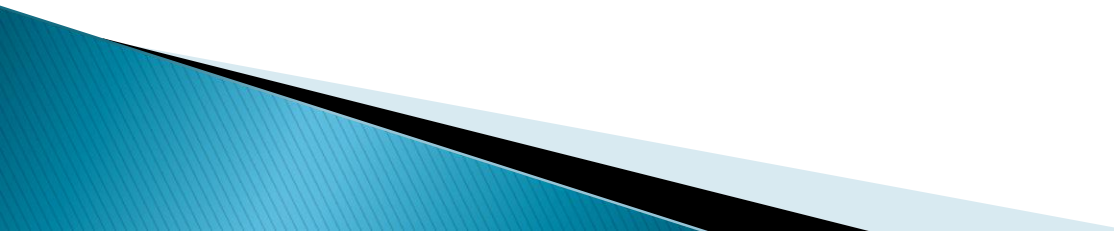
CTE Anchor Standards

1. 0 Academics	7. 0 Responsibility & Flexibility
2. 0 Communications	8. 0 Ethics & Legal Responsibilities
3. 0 Career Planning & Management	9. 0 Leadership & Teamwork
4. 0 Technology	10.0 Technical Knowledge & Skills
5. 0 Problem Solving & Critical Thinking	11. 0 Demonstration & Application
6.0 Health & Safety	

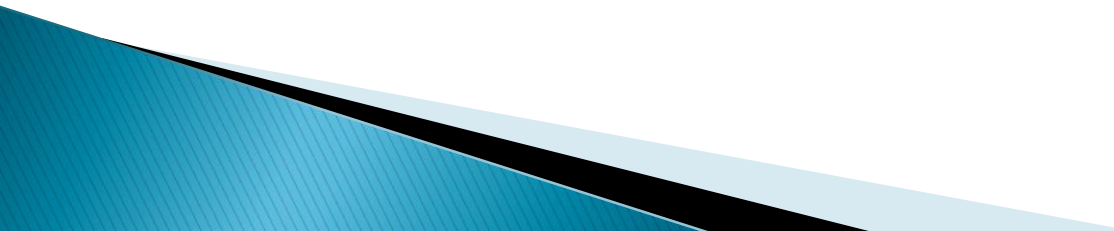
MCS Pathway Standards

- ▶ Unique to industry sector
 - ▶ Organized by careers within the industry sector of similar work environments
 - ▶ Describes what students should know and be able to do once the standard is achieved
 - ▶ Build from simple to complex knowledge and performance
- 

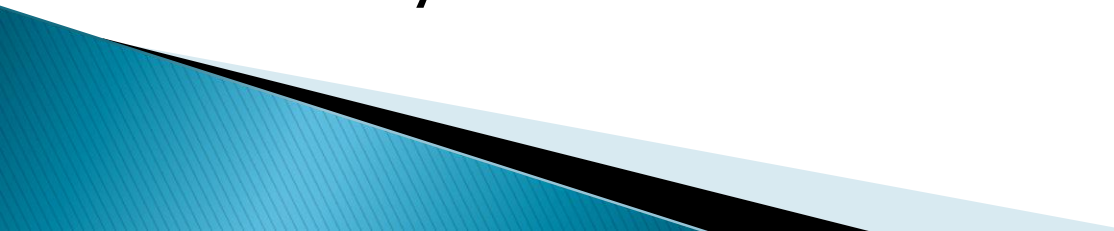
Review

- ▶ CCSS increase in complexity in what students must be able to know and do in order to be ready for the demands of college and career level reading no later than the end of high school.
 - ▶ CCSS require the progressive development of reading comprehension so that students advancing through grade levels are able to understand more from what they read
- 

Review

- ▶ Literacy standards complement the CCSS
 - ▶ Literacy is the job of all instructors, not just ELA teachers
 - ▶ MCS have revisions
 - ▶ MCS may be aligned to the CCSS, CCR
- 

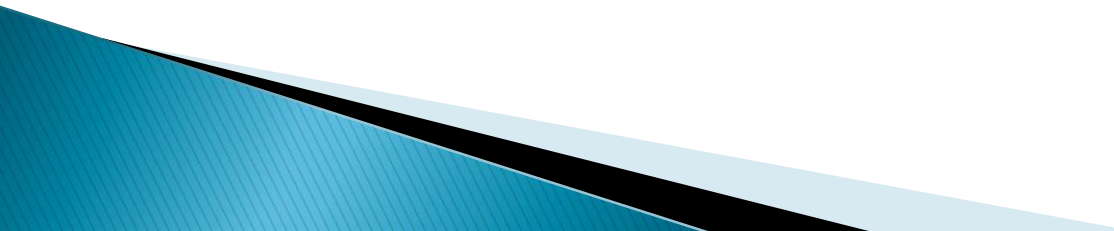
Next Steps

- ▶ Continue to familiarize yourself with the Common Core and Model Curriculum Standards
 - ▶ Begin to make connections with the College and Career Readiness Anchor Standards
 - ▶ Pencil in suggested revisions on your course outlines...discuss with colleagues
 - ▶ Explore curriculum opportunities with groups of academic **AND** CTE/ROP colleagues
 - ▶ Share your work
- 

Next Steps

- ▶ Join the free, online Brokers of Expertise website group for Common Core and CTE Standards

www.myboe.org

- Join discussion threads
 - Post relevant articles and documents
 - Upload presentations to share and use
- 

Resources and Contributions

- ▶ Santa Clara County Office of Education
- ▶ Common Core State Standards: www.corestandards.org
- ▶ SBAC: www.k.12.wa.us/SMARTER
- ▶ Career Technical Education MCS:
www.cde.ca.gov/ci/ct/
- ▶ Achieve Survey:
<http://www.achieve.org/CCSS-CTE-BridgingtheDivide>